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IN REPLY TO DUALISTIC CONCEPTIONS OF MIND.

HOW attractive is the idea of "Mind the Creator of Matter"! In a certain sense the theory is old, as old as religion, as old as mankind, as old as the first dawn of civilization, for mind has been considered the creator of the whole world; God is the creator and God has been assumed to be mind in the narrowest sense of the word.

The present number of *The Monist* contains an article under this caption by L. L. Pimenoff, who here presents the proposition of "mind the creator of matter" in a still more specific sense. It is not only the old idea that God created the world in the Biblical sense, "And God said 'Let there be light' and there was light," but the statement is meant in a new sense based upon the latest theories of psychical research. According to these mind is a kind of cerebral battery which sends out electric waves, and these waves have the faculty of creating matter in the sense, not that matter is made out of nothing, but that ether is transformed into tangible and gravitating mass. The author corroborates the proposition by quoting a number of authorities, some of them of scientific repute such as Oliver Lodge and Crookes, but I doubt very much whether their depositions will find credit among scientists of the normal and average stamp who are not affected by psychic theories and by a belief in extraordinary experiences of psychically abnormal people.

The subject presented is one of great interest, and if it contains a mere inkling of truth it would certainly be of enormous importance to the human race, for in that case matter of all kinds, including the most necessary nourishment, could be produced by pure thought. A person in need would have simply to concentrate his mind on the materials he wanted and could thus easily appease his hunger or thirst in a most satisfactory manner. There would no longer be any attempts made to starve whole nations into submission, but the psychical men could produce without great effort the things needed for the sustenance of their comrades and families.

The theory of "mind the creator of matter" as we find it in the Bible is extremely old. All heathen mythologies contain stories in which the gods produce the world, or certain parts of the world, with great ease and by the mere power either of the word or of mental faculties. The word plays an important part in Egyptian mythology, and it almost seems as if the theory of the Logos as proposed first in neo-Platonism and then in the Gospel according to St. John was ultimately derived from Egyptian sources, but even the crudest mythologies make the gods or some god, or if they have already developed into a monotheistic belief, the one sole God, shape the world in one way or another, and so it is natural that a thinking being starts his theories with the idea that mind is the primary factor in the theory of existence. Other religions, those of ancient Babylon, India, Assyria, Persia and China, developed on parallel lines.

The theory of mind as the creator of the world received its first shock when science originated, and wherever we can watch that process we find that a more materialistic theory is substituted. We see mind develop in children. We see first the material bodily existence, and the mind develops gradually, first as mere sentient life

endowed with feeling and desire, and then from sentiency mentality is gradually developed until a state of maturity is reached in which thought becomes dominant, and in that phase we speak of mind. Thus mind is the final product of a process which we can observe in every growing being.

It is a new-fangled theory to look upon mind as a kind of dynamo or an electric motor which sends out waves that can be utilized for a physical purpose. The new theory originated with people who start with an exaggerated notion of the significance of spiritual factors, but after all it seems to us that they propose theories that are extremely materialistic. They misunderstand the nature of mind and intellectual functions and render them physical like the activities of mechanical machinery.

Whatever mind may be—whether a mechanical machine that attends to the process of thinking, or some mysterious agency of a spiritual character—it is certainly the most important fact that we meet with in our experience, for it is mind that dominates all our affairs and makes man a rational and thinking being. It is the scepter of man's dominion on earth, and it alone is the quality which endows him with his superiority among other creatures by giving him the faculty of foreseeing coming events, anticipating dangers and adjusting himself to his surroundings.

Mind has risen into existence in living organisms, and we are sure that it did not exist when the earth was still in its primitive condition, uninhabited and uninhabitable, before its crust had cooled down into a state that made plant and animal life possible. Nothing is more certain than this: First the earth was in a fiery state like that of our sun; gradually the planet cooled down and formed a crust on which the watery element covered the greater part of it, and the *terra firma* constituted the place on which life could develop in a regular evolution, reaching higher and higher planes of being. The characteristic feature of

higher and lower is determined by the mental stage which has been reached and attains its highest development in man. So there was a time when there existed no mind on earth, and now the earth is peopled with intelligent beings that have evolved in a gradual and regular course of improvement. To the scientist the question is not how mind can produce matter, but how matter can develop from a crude state of mindless existence into a better and higher condition governed by mind.

Thus not the origin of matter from mind is a problem of science, but the origin of mind from matter; and to state briefly the outcome of it, we must insist that both mind and feeling have been declared not to be matter, or of matter, nor possibly to have been derived from matter as one of its qualities, but mind must be something *sui generis*. Mental phenomena are subjective, while motions and actions of matter are objective, and the solution of this problem has been briefly the statement that all subjectivity, including mental actions, constitute one side of existence while material existence is the other; or in other words existence is possessed of an inside and an outside. It presents itself as an objective existence by being matter in motion, but in itself it is neither matter nor motion but feeling, and this theory first clearly formulated by Fechner is commonly called the theory of parallelism.

According to the theory of parallelism, matter and feeling are different. Feeling does not originate from matter nor from energy, but is radically different. It is assumed to accompany, according to form, the different motions of a living body, and different motions in the nervous system of living beings are accompanied by different forms of feeling. These two sides of existence, the mechanical or objective and the sentient or subjective, are as different from each other as a concave or inside curve and the convex or outside curve of a circle. They have a definite

correspondence but are different in their very characteristic qualities. The totality of subjective phenomena in its continuous existence is called soul.

If the soul cannot have been produced by matter it must have evolved together with matter as its inside existence, and this inside existence is trying to gain the superiority and take the lead as a central dominance of the whole. Assuming that certain motions are in themselves feelings we will understand how these feelings develop into broader and deeper consciousness. The subjective feature of unorganized nature, often called dead or inert matter, is not such that it can be characterized as being possessed of actual feeling, but assuming that the subjective side of matter exists throughout the world everything existent is possessed of subjectivity or the potential conditions from which feelings develop, and if we ask how such a change of potential feelings into actual feelings may come about, my answer would be, by organization. It is not sufficient for a feeling to be actual consciousness. The feeling must gain clearness to be a real feeling, and that is possible only by organization. An isolated feeling is not actual feeling, it is merely potential feeling. A feeling to become an actual feeling must be interrelated with other feelings. It must feel and be felt. It must be so interlinked with other feelings that one feeling feels the other feeling, and can gain clearness by a contrast with other feelings. Such a process would be called organization, and at any rate it is a fact that sentient life originates only in organisms which are living beings in which sentient parts are interrelated and organized.

Such we may fairly well claim to be the established facts of the origin of feeling from a world endowed throughout with subjectivity, which involves a possibility of developing feeling and may be considered as the inside nature of all existence. The next question is how feeling

as it has developed in sentient matter will develop mind, and we may briefly answer this problem with the following considerations. A sentient organism is exposed to all kinds of impressions, such as touch, light, sound waves, etc. These impressions are of the same kind and have continued to affect organisms from the beginning of their birth, and the results of these impressions have affected the organism in such a way that their repeated occurrence has created organs for their reception. The impressions of touch have affected the outside of the body in an outer membrane called the skin, and the skin is so arranged as to receive impressions of touch in a way that they are felt to represent something outside. Air waves come upon the body in a similar way as the impressions of touch, but in a special place an organ is produced which we call the ear, ready to receive these air waves so that they may be incorporated into highly specialized feelings called sounds, and every such feeling of sound is so highly specialized that sentient organisms have different feelings for each different sound, and these feelings so differentiated begin to represent the different sounds so as to become identified with them. The same is true of the impressions which ether waves make. A special organ is formed which we call the eye, and the highly complicated process of seeing has finally made the eye as it is to-day in living beings, animals as well as man.

The eye is so differentiated that a living creature receives through the ether waves impressions which produce definite pictures, and these pictures represent the bodies from which they come. The process of seeing has become so natural to all living creatures that they do not reflect about its nature and origin but simply take the result as a fact of their existence. We see things and animals and all kinds of objects in our surroundings and adapt them to represent the things themselves as given data of our experience. While the light emanating from objects of our surround-

ings impresses pictures on our retina we take the pictures as facts and say that we see those things as if our pictures were the realities themselves. Considering all in all we find that sense-impressions are made upon organisms and that these sense-impressions by constant repetition become representative, and we may boldly say that representativeness is the character of mind. We have sensations, and these sensations picture the world of our surroundings and by showing them with analogous descriptive details they become symbols and furnish us with the material out of which we construct our views of the world.

The next question is the perfection of man, or the origin of human reason, and that coincides with the origin and introduction of speech. By speaking an animal learns to think in abstract terms which puts life on a higher plane. Reason enables us to think, foresee and adapt ourselves to conditions and to understand better the significance of life; in other words, to think scientifically and to raise consciousness to a higher plane, commonly called self-consciousness. How does this come about? How is it possible that mere animal life can develop into rational or human thought? The answer is this, that it comes about in the normal course of events by repetition and by a continued and higher organization. The same impression follows the same nervous tracts by which it is carried to the same central place in the brain. There it is impressed into a structure which has been formed by the same kind of impressions made by the same kind of object in former experiences. The whole structure thus forms a kind of composite picture, and this composite picture melts into one and is accompanied by an oral expression which denotes the whole. The origin of reason is the origin of language. Man thinks because he speaks. He has learned to think by self-observation through an analysis of his way of thinking.

I will not enter into the origin of language, which has been treated by Ludwig Noiré and also by Max Müller, but I will state here that the speaking animal develops a certain sound to accompany the definite picture of a certain object. Seeing a cat or a horse or a dog we denote all the recollections of cats or dogs or horses with the words, and thus the names instigate and stimulate our recollections of these several animals. They become a kind of label and, as all our mental impressions are registered according to our notions of them in a systematic way, our new sense-impressions run along the tracks of former nervous impressions of the same kind. The brain originates like a store house where different sense-impressions are regularly stored according to their nature, and we thus see that in the development of mental arrangements a logical system originates in which species become subdivisions of genera. In this way of systematically registering our sense-impressions according to the principle that the same impression goes to the same place prepared for it by former impressions, we develop a logical arrangement of mentality that prepares us to think clearly and helps us to find ourselves prepared for a logical consideration of our own experience when we reach the scientific method of self-observation.

One mind can exchange thoughts with other minds by using the same kind of symbols and speaking the same language. We understand each other because the same words denote the same objects and the interconnection of words expressed in endings and conjunctions will explain to us the relation in which the words stand to each other. All is grown by nature through the impressions of the surrounding world and thought and observation of their inter-relationship. It is the symbolical nature of thought which makes mind useful, and if there is any telepathy such as exists in telegraphy it is in sending out by the quickest pos-

sible means (among which electric currents are the most efficient) certain shocks transmitted and so charged as to have definite meanings, and these meanings are understood by the recipient party in the same sense as they are given out by the sender of the telegram. Here again we find that the nature of mind remains representative. We must know that certain impressions, be they dots or dashes or any kind of shocks sent out, represent definite thought and that both parties possess the key to understand them. If mind produces anything it produces definite impressions by any kind of means, sound-waves or electric waves or what not, but always a definite form of a wave must possess a definite meaning. Thus mind is not any mysterious quality of unknown psychical or mental or spiritual waves, but it is produced by the transmission of physical impressions by means of the spoken word or otherwise, and we have not the slightest notion in spite of all the learned believers in the mystic ability of the mind that mind produces any other effects, such as the consolidation of ether into matter, or the change of one chemical element into another, or that there are waves going out from the brain of man possessed with any supernatural or unnatural or hyperphysical faculties.

Considering what science knows about the soul of man, I should say *a priori* that such inventions as are mentioned in the article "Mind the Creator of Matter" are highly improbable, and I would therefore naturally refuse to believe them until they are proved beyond doubt. The strange facts mentioned are interesting enough in so far as they are accepted and considered believable by the author who presents them, and also by the men of science to whom they are attributed. Let us wait until they are verified and hold ourselves open to conviction either way, to accept them if they unqualifiedly can be proved, or to reject them if they remain doubtful or can be proved to be untrue by having

been due to misrepresentation or misconceptions of some kind.

It is a nice picture of the potentialities of mind to think that it possesses qualities which would make it divine and a real child of God, the creator. Yet even in this we should say that such a conception is not without a deeper meaning, for mind being the product of organization may truly be said to be the creator of matter if we think of matter as being the product of organization. If this principle may be considered as the prototype on which mind has been formed we may consider it a kind of original mind or protom mentality, and such a condition is exactly the faculty of making something by combinations. This would be the divinity that pervades the world and its creative faculty, and in so far we could again justify the old proposition that God has made the world; or, in other words, the theory would be justified that mind—not the human mind but the superhuman or divine mind, the principle of organization—has shaped matter from the aboriginal material of ether into the different elements as we see them develop according to their masses on a definite grade of creation according to their weight and complexity. In this case, however, we would find our conception of God justified, which may be called in one word nomotheism, or the principle that natural law is the divine order according to which a chaos is impossible, that all nature develops according to law in a definite orderly way as it is realized in the course of evolution.

The proposition of our author, L. L. Pimenoff, can fairly be regarded as unacceptable to scientific thinkers, and we present it mainly as an interesting vagary of a fantastic theorist who—in the judgment of most scientists—will scarcely expect a serious indorsement of his proposition. In this same number we present an article by Mr. C. D. Broad whose expositions on the subject of "Body

and Mind" are of a very different character. He treats the problem of the interrelation of body and mind—but suffers from the misconception that body and mind are separate entities without explaining their character or their mode of intercommunication. But he criticises the current theory of parallelism.

Psychologists since Fechner's day have indeed assumed that feeling is not motion and motion is not feeling. Feeling cannot act as a link in causation, and causation must be a chain of events in which cause and effect are uninterrupted. The question therefore is, how does the mental activity enter in the chain of events? If feeling does not form a part of the chain it plays no part in causation and the mind cannot *ex principio* act on the body. This would be a simple conclusion from the abstract considerations that by feeling we do not understand matter or motion, and by matter or motion we do not understand feeling, otherwise we might follow Mr. Broad in thinking that the theory of parallelism is absurd.

We will therefore make a few remarks on the theory of parallelism which we hold to be true in spite of misrepresentation. In a series of events which act as causes and effects in a mental process it is necessary that step by step brain motions are followed by other brain motions, but some of the brain motions are accompanied by phases of feeling, representing mental acts of thought. Definite thoughts are the inside accompaniment of definite brain motions and the nature of thought depends on definite forms of brain structures. And this definite structure gives them the faculty of acting. The meaning of words or the mental aspect is not endowed with energy, but definite brain structures which are endowed with energy are possessed of meaning, and when their feeling is stirred thought originates and assumes in the mind a definite meaning accompanied by the commotion of its correspond-

ing definite structure. It is this brain motion which forms a chain in the causation and here is the point at which mind actually acts on body.

It is not the mind itself or the feeling which is present in our mind that forms a link in the chain of causation, but it is the energized nerve which stirs the brain and acts as the causal link. It is not impossible that by some diseased condition the nerve fails to act, and in that case there may be a state of will without the ability to execute it—a disease described by Ribot under the name *aboulia*.

Thus a critique of the theory of parallelism may become a verbal quibble. If we understand by mind merely the subjective side we could speak of the inability of mind or of feeling to act on the body, but if we understand by mind not only the subjective aspect of a mental process but also the bodily commotion of the brain which it ensouls, we would have to say that there is no question but that the mind influences the body. We must not lose sight of the fact that feeling is a mere abstraction, and if by this abstraction we mean only the subjective side of a process, only the mere actual feeling to the exclusion of its physical condition or accompaniment, it would naturally be illogical to make it the efficient cause in the chain of causation. But if we include in feeling its bodily condition we naturally include the physiological activity which is freighted with energy and forms a link in the chain of cerebral causation.

Mr. Broad certainly does not present a theory of his own which would be acceptable, or give us a satisfactory explanation as to the nature of mind. No! He leaves us in the dark as to what the mind really is or can be, and for all I can see in his proposition, the mind is a mysterious creation of a dualistic conception which is endowed with several mysterious qualities, acting on bodily forces in an unaccountable way.

According to Fechner feeling does not act on mind,

because motions only can be the causes in a chain of causation; what is not mechanical cannot produce an effect, for causation is mechanical. Feeling is different from mechanical action, but it is inefficient not because it is different, but because it is not motion. In order to be a cause, or a link in the chain of causation, it must move or push in order to produce a change of any kind. If the feeling in its narrowest meaning cannot stir motions in the brain, the accompanying brain motion may or probably will do it. In bearing this in mind we find no contradiction in the theory of parallelism.

Mr. Broad favors a "two-sided interactionism" in which "the mind sometimes acts on the body and the body sometimes acts on the mind." He condemns epiphenomenalism, according to which feeling is an epiphenomenon or super-added feature standing outside the regular normal causation of physico-chemical activity. Next in foolishness to this theory he regards parallelism. He claims with great insistence that the body is not a purely physical and chemical system, and in this latter point we can agree fully and without any reservation, for in the scale of natural phenomena we have a domain of purely physical and chemical phenomena and while some scientists assume that vital processes are purely physical and chemical we cannot deny that psychical transactions possess a feature that cannot be regarded as physical or chemical, but possesses something that is absolutely new.

If rightly understood there can be no quarrel on this point, and we fully agree that the influence of psychical items does make a difference in the chain of causation. If it is not the feeling portion of a telegram which makes a man jump from his seat and rush into action, it is the meaning of it which meets with an understanding of a threatening danger or whatever it may be, and this meaning is conveyed by the form of letters, which according to

former education possess a definite meaning. The forms of certain words together with the meaning with which they are endowed constitute the factor which causes the reaction and sets energy free, just as a key unlocks the bolts through the arrangement of its wards and it opens the lock on account of the shape of its indentations which fit into the corresponding shape of the lock. It is this correspondence of the meaning of words or of symbols which makes the psychical portion of interrelated events efficient, and it is this fittingness, this correspondence, not exactly the pressure and the energy, which constitutes the significance of spirituality. Thus we might very well say that it is not the energy or pressure of the key that opens the lock, but it is the very form, the singular complexity of its wards which in the Yale lock is reduced to a curve on the stem of the key. The mechanical pressure of the key as well as of the nerve is the moving power that is indispensable in the chain of causation, but the correspondence of the meaning of words determines an action in the same way as the proper key opens the lock into which it fits.

Thus it is seen that in judging of the theory of parallelism we must first of all understand its meaning and not confuse its issues. It is to be feared that Mr. Broad construes a parallelism of his own and condemns it on the ground of a misrepresentation which is either misconstrued or possibly a wrong presentation. At any rate it seems to me that Mr. Broad's criticism does not upset or invalidate the theory of parallelism, which so far as can be seen is the only one on which a monistic theory of the interaction of body and mind can be constructed.

EDITOR.